3:30 – 5:30 pm
CHALLENGES IN POLYMER MS ANALYSIS
Chair: Sarah Trimpin

MOG pm 03:30 **Challenges in Polymer Characterization and ASAP and API-Pyrolysis for Polymer characterization**; Charles N. Mcewen; *E I DuPont De Nemours, Wilmington, DE*

MOG pm 03:50 **Laser-Induced Acoustic Desorption / Chemical Ionization (LIAD/CI) Strategies Towards the Direct Mass Spectrometric Analysis of Underivatized Polyisobutylenes**; Putuma P. Gqamana[1]; David Aaserud[2]; Hilkka I. Kenttämaa[1]; *[1]Purdue University, West Lafayette, IN; [2]The Lubrizol Corporation, Wickliffe, OH*

MOG pm 04:10 **Polymer Characterization using Sophisticated Liquid Chromatographic Techniques Combined with MALDI- and ESI-TOF Mass Spectrometry**; Steffen M. Weidner; Jana Falkenhagen; Ulrich Just; Andreas Thuenemann; Sergey Maltsev; *Fed. Institute for Materials Research and Testing, Berlin, Germany*

MOG pm 04:30 **Analysis of Homopolymers and Copolymers by Ion Mobility Spectrometry-Mass Spectrometry**; Dragan Isailovic; Sarah Trimpin; Ruwan T Kurulugama; David E Clemmer; *Indiana University, Bloomington, , IN*

MOG pm 04:50 **Dissociation Pathways of Polymer Ions**; Chrys Wesdemiotis; Michael J. Polce; Kittisak Chaicharoen; Alyison M. Leigh; Edgardo Rivera-Tirado; *University of Akron, Akron, OH*

MOG pm 05:10 **An Approach to the Quantitative Determination of Polymer Molecular Mass Distribution by MALDI-TOF-Mass Spectrometry**; Charles M. Guttman; Kathleen M. Flynn; William E. Wallace; *NIST, Polymer Division, Gaithersburg, MD*

5:45 – 7:00 pm
WORKSHOPS. **See page 6.**

TUESDAY MORNING, JUNE 5

8:15 - 10:15 am
MS DETERMINATION OF BIOMARKERS FOR DRUG SAFETY AND EFFICACY
Chair: Tracie L. Williams

TOA am 08:15 **The Direct Use of Mass Spectrometry Measurements of Protein Biomarkers to Guide Drug Development Efforts**; John E. Hale; Jon P. Butler; Valentina Gelfanova; Jesus A. Gutierrez; Laura V. Hale; Bomie Han; Richard E. Higgs; Zhaoyan Jin; Michael D. Knierman; Jeffery S. Patrick; Masahiko Sato; Szekeres Philip; David E Watson; Jill A. Willency; Yuejun Zhen; *Eli Lilly & Co., Indianapolis, IN*

TOA am 08:35 **An Intact Protein LC/MS Strategy for Serum Biomarker Development: Biomarkers of Hepatic Responsiveness to Chemopreventive Treatment with the Triterpenoid CDDO-Im**; Peter F. Scholl[1]; Denis Andrzejewski[2]; John H. Callahan[2]; Steven M. Musser[2]; Thomas W. Kensler[1]; John D. Groopman[1]; *[1]Johns Hopkins University, Baltimore, MD; [2]U.S. Food and Drug Administration, CFSAN, College Park, MD*

TOA am 08:55 **Mass Spectrometric Quantitation of Small Molecules as Enabling Technology Beyond ADME – Improving Sensitivity and Throughput in Measuring Pharmacodynamic Markers**; Wenlin Li; Chengjie Ji; Gabriella Szekely-Klepser; Nalini Sadagopan; *Pfizer Global R&D, Ann Arbor, MI*

TOA am 09:15 **The Application of 8plex iTRAQ Reagents to Study the Spinal Fluid Proteome in an Alzheimer's Clinical Trial**; Kelvin H. Lee[1]; Leila H. Choe[1]; Mark d'Ascenzo[1]; Darryl Pappin[3]; Norman R. Relkin[2]; *[1]Cornell University, Ithaca, NY; [2]Cornell Univ. Medical College, New York, NY; [3]Applied Biosystems, Framingham, MA*

TOA am 09:35 **Bioanalytical Strategies for Antibody Drug Conjugate (ADC) Biopharmaceutical Development: Characterization of Trastuzumab-MCC-DM1 in Plasma by Affinity Mass Spectrometry**; Keyang Xu; Ola M. Saad; Jakub Baudys; Lara Williams; Surinder Kaur; *Genentech, Inc., South San Francisco, CA*

TOA am 09:55 **Accelerating Novel Drug Target Identification by Quantitative Proteomics**; Shao-en Ong; Monica Schenone; Stuart L. Schreiber; Steve Carr; *Broad Institute of MIT & Harvard, Cambridge, MA*

8:15 - 10:15 am
ETD v. ECD
Chair: Joshua J. Coon

TOB am 08:15 **Radical-induced Loss and Rearrangement Reactions in Electron-Capture Dissociation Studied using a Database Containing Over 15,000 Mass Spectra**; Mikhail Savitski; Michael Nielsen; Christopher Adams; Roman Zubarev; *Uppsala University, Uppsala, Sweden*

TOB am 08:35 **Application of Electron Transfer Dissociation (ETD) Mass Spectrometry in Proteomic Analysis**; Catherine C L Wong; Xuemei Han; Daniel Cociorva; Tao Xu; John R Yates; *The Scripps Research Institute, La Jolla, CA*

TOB am 08:55 **Electron Capture/Transfer Dissociation Product Ion Abundances: Correlation with Amino Acid Hydrophobicity and Application in Peptide and Protein Structural Analysis**; Yury O. Tsybin[1]; Huan He[2]; Hisham Ben Hamidane[1]; Mark R. Emmett[2]; Christopher L. Hendrickson[2]; Oleg Yu. Tsybin[3]; Alan G. Marshall[2]; *[1]Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland; [2]National High Magnetic Field Laboratory, Tallahassee, FL; [3]State Polytechnical University, Saint-Petersburg, Russia*

TOB am 09:15 **The Utility of Electron Transfer Dissociation in Routine Top-Down Analysis of Complex Protein Mixtures**; Maureen K. Bunger; Benjamin J. Cargile; Jonathan L. Bundy; James L. Stephenson, Jr.; *Research Triangle Institute, Research Triangle Park, NC*

TOB am 09:35 **Characterization of >150 Human Histone H3 Forms using Electron Capture Dissociation and FTMS**; Benjamin A. Garcia; James J Pesavento; Craig A. Mizzen; Neil L. Kelleher; *University of Illinois, Champaign, IL*

TOB am 09:55 **Performance Characteristics of Electron Transfer Dissociation**; Doug Phanstiel; David M Good; Matthew Wirtala; Graeme McAlister; Joshua J. Coon; *University of Wisconsin, Madison, WI*

8:15 - 10:15 am
MS ANALYSIS OF DNA ADDUCTS
Chair: Yinsheng Wang

TOC am 08:15 **Probing Ligand Binding to Duplex DNA using KMnO4 Reactions and Electrospray Ionization Tandem Mass spectrometry**; Jennifer Brodbelt; Carolyn Mazzitelli; *The University of Texas, Austin, TX*

TOC am 08:35 **Correlating DNA Adduct Levels and Gene Expression using LC-MS/MS and DNA Microarrays for a Foodborne Heterocyclic Aromatic Amine Procarcinogen**; James Glick[1]; Robert C. Sullivan[2]; Helmut Zarbl[2]; Paul Vouros[1]; *[1]Northeastern University and Barnett Institute, Boston, MA; [2]Robert Wood Johnson Medical School, Piscataway, NJ*

TOC am 08:55 **Identification and Quantification of Novel Oxidative Intrastrand Crosslink Lesions Formed in Hela Cells**; Haizheng Hong; Huachuan Cao; Yinsheng Wang; *University of California, Riverside, CA*

TOC am 09:15 **Stable Isotope Labeling – HPLC-MS/MS Analysis of Sequence Preferences for DNA Adduct Formation**; Natalia Tretyakova; *University of Minnesota, Minneapolis, MN*

TOC am 09:35 **Simultaneous Characterization and Quantification of Multiple DNA Adducts by LC-ESI/MS^n for Potential Use in Human Biomonitoring Studies**; Angela K. Goodenough; Robert J. Turesky; *Wadsworth Center, Albany, NY*

TOC am 09:55 **Analysis of DNA Adducts of Aristolochic Acids Associated with Kidney Disease**; Zongwei Cai; Wan Chan; *Hong Kong Baptist University, Kowloon Tong, Kowloon, Hong Kong*

8:15 - 10:15 am
PROTEIN PROTEIN INTERACTIONS
Chair: Julie A. Leary

TOD am 08:15 **Use of a Travelling Wave-Based Ion Mobility Mass Spectrometry Approach to Resolve Proteins of Varying Conformation**; James H Scrivens[1]; Konstantinos Thalassinos[1]; Gillian Hilton[1]; Susan E Slade[1]; Teresa J T Pinheiro[1]; Robert H Bateman[2]; Michael T Bowers[3]; *[1]Univ of Warwick, Coventry, United Kingdom; [2]Waters, Manchester, UK; [3]UCSB, Santa Barbara, CA*

TOD am 08:35 **Use of Ion Mobility and High Mass Analysis for the Determination of Protein:Protein Interaction and Topology**; Iain D G Campuzano[1]; James Langridge[1]; Armann Andaya[2]; Matthew Schenauer[2]; Julie Leary[2]; *[1]Waters Corporation, Manchester, United Kingdom; [2]Genome Centre UC Davis, Davis, CA*

TOD am 08:55 **Interactions between Viral Accessory Proteins and Src-family Kinases Measured by H/D Exchange Mass Spectrometry**; John R. Engen[1]; Thomas E. Wales[1]; David D. Weis[2]; Lori Emert-Sedlak[3]; Thomas E. Smithgall[3]; *[1]Northeastern University, Boston, MA; [2]University of New Mexico, Albuquerque, NM; [3]University of Pittsburgh, Pittsburgh, PA*

TOD am 09:15 **Comparing SID and CID of Noncovalent Protein-Protein Complexes in a Modified QTOF Mass Spectrometer**; Richard L. Beardsley; Christopher M. Jones; Asiri S. Galhena; Vicki H. Wysocki; *University of Arizona, Tuscon, AZ*

TOD am 09:35 **Virus Assembly Studied by Macromolecular (Tandem) Mass Spectrometry and Ion Mobility**; Kristina Lorenzen; Charlotte Uetrecht; Cees Versluis; Albert J.R. Heck; *Utrech University, CA Utrecht, Netherlands*

TOD am 09:55 **Protein Conformational Flexibility and Structural Change Upon Binding of Ligands and Proteins Studied by Ion Mobility Q-TOF MS**; Stephen J. Watt[1]; Iain Campuzano[2]; Frank Sobott[1]; *[1]Structural Genomics Consortium, Oxford, United Kingdom; [2]Waters Corporation, Manchester, UK*

8:15 - 10:15 am
LC-MALDI MS
Chair: Liang Li

TOE am 08:15 **Optimizing the LC-MALDI Process: From High-Density Sample Fractionation to Data Acquisition**; J. Bryce Young; Liang Li; *University of Alberta, Edmonton, Canada*

TOE am 08:55 **2D HPLC-MALDI MS Analysis of Complex Protein Mixtures with Peptide Retention Prediction in Both Dimensions**; Oleg V. Krokhin[1]; Vic Spicer[2]; Werner Ens[2]; Kenneth G. Standing[2]; John A. Wilkins[1]; *[1]Manitoba Centre for Proteomics and Systems Biology, Winnipeg, Canada; [2]University of Manitoba, Winnipeg, Canada*

TOE am 09:15 **1D- and 2D-Protein Chromatography within the Proteomics Workflow for Enhanced Characterization of Protein Post-Translational Modifications**; Mark E. Mccomb; Claire Dauly; David H. Perlman; Weiwei Tong; Yang Su; Boris Hayete; James West; Catherine E. Costello; *Cardiovascular Proteomics Center, BUSM, Boston, MA*

TOE am 09:35 **Combining MALDI-FTMS and Bioinformatics for Peptidomic Comparison Among Decapod Crustacean Species**; Joshua Schmidt[1]; Andrew Christie[2]; Sean McIlwain[1]; Mingming Ma[1]; David Page[1]; Lingjun Li[1]; *[1]University of Wisconsin-Madison, Madison, WI; [2]University of Washington, Seattle, WA*

TOE am 09:55 **LC-MALDI-TOF-TOF Experiments on Venoms: A Powerful Approach for *de novo* and Top-Down Sequencing of New Pharmacological Tools**; Loïc Quinton[1]; Kevin Demeure[1]; Rowan Dobson[1]; Nicolas Gilles[2]; Edwin De Pauw[1]; *[1]University of Liège, Liège, Belgium; [2]CEA - DIEP, Saclay, France*

8:15 - 10:15 am
DEVELOPMENTS IN TOF MS INSTRUMENTATION
Chair: Werner Ens

TOF am 08:15 **High Performance MALDI-TOF Mass Spectrometry**; Marvin Vestal; *Virgin Instruments Corp., Sudbury, MA*

TOF am 08:35 **MSnth on a QqTOF Tandem Mass Spectrometer**; Bruce A. Thomson; Igor V. Chernushevich; *MDS Sciex, Concord, Canada*

TOF am 08:55 **A Multiple-Reflection Time-of-Flight Isobar Separator**; Wolfgang R. Plass[1]; Timo Dickel[1]; Martin Petrick[1]; Ulrich Czok[1]; Hans Geissel[2]; Christian Jesch[1]; Christoph Scheidenberger[2]; *[1]Justus-Liebig-Universität Giessen, Giessen, Germany; [2]Gesellschaft für Schwerionenforschung, Darmstadt, Germany*

TOF am 09:15 **High Resolution Multireflecting Time-of-Flight Mass Spectrometer with Electrospray Ion Source**; Viatcheslav Artaev[1]; Matthew Giardina[1]; Anatoly Verentchikov[2]; Yuri Hasin[2]; Mikhail Gavrik[2]; Boris Kozlov[2]; Marat Muradymov[2]; Michail Yavor[2]; *[1]LECO*

Corporation, St Joseph, MI; [2]Mass Spectrometry Consulting, St. Petersburg, Russia

TOF am 09:35 **Dynamic Range Extension for TOF MS with Orthogonal Injection**; Igor Chernushevich; Alexander Loboda; *MDS Sciex, Concord, Canada*

TOF am 09:55 **Ultra-sensitive Determination of Polycyclic Aromatic Compounds with an Atmospheric Pressure Laser Ionization Interface for AP GC-MS**; Thorsten Benter; Ralf Schiewek; Marc Schellentraeger; Rene Moennikes; Matthias Lorenz; Ronald Giese; Klaus J Brockmann; Siegmar Gaeb; Oliver J Schmitz; *University of Wuppertal, Wuppertal, Germany*

8:15 - 10:15 am
HYDROCARBON ANALYSIS VIA MS
Chair: Ryan P. Rodgers

TOG am 08:15 **Sulfur Speciation of Petroleum by Atmospheric Pressure Photoionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry**; Alan G. Marshall; Jeremiah M. Purcell; Christopher L. Hendrickson; Do-Gyun Kim; Ryan P. Rodgers; *Ion Cyclotron Resonance Prog, Tallahassee, FL*

TOG am 08:35 **Classification of Sulfur Heterocycles in Crude Oil Fractions using Chromatographic Sample Preparation and FT-ICR MS Analysis**; Wolfgang Schrader[1]; Saroj K. Panda[1]; Jan T. Andersson[2]; *[1]Max-Planck-Institut für Kohlenforschung, Mülheim / Ruhr, Germany; [2]Westfälische Wilhelms-Universität Münster, Münster, Germany*

TOG am 08:55 **Field Ionization Mass Spectrometry, Response Factors, and the Use in Quantifying Base Oil**; Michael T. Cheng; James Hudson; *Chevron Research, Richmond, CA*

TOG am 09:15 **A new Approach to Molecular Characterization of Solid Petroleum Precursors by a Tandem NMR and FT-ICR-MS at 12 Tesla**; Rachel L. Sleighter[1]; Heidi M. Bialk[1]; Isaiah D. Ruhl[2]; Patrick G Hatcher[1]; *[1]Old Dominion University, Norfolk, VA; [2]Ohio State University, Columbus, OH*

TOG am 09:35 **Hydrocarbon Analysis with the Supersonic GC-MS - A Novel Concept of Isomer Abundance Analysis**; Alexander B. Fialkov; Aviv Amirav; Alexander Gordin; *Tel-Aviv University, Tel-Aviv, Israel*

TOG am 09:55 **Reactions of ClMn(H2O)+ with Polar and Nonpolar Hydrocarbons in FT-ICR: Observation of H2O Ligand Displacement without Dehydrogenation or Fragmentation**; Penggao Duan; Mingkun Fu; David S. Pinkston; Hilkka I. Kenttämaa; *Purdue University, West Lafayette, IN*

10:15 am – 2:30 pm
POSTER SESSION AND EXHIBITS

TUESDAY AFTERNOON

2:30 - 4:30 pm
RANGE IN MASS SPECTROMETRY BASED PROTEOMICS MEASUREMENTS
Chair: Michael J. MacCoss

TOA pm 02:30 **DASER-MMF - Finding ALL the Needles in a Haystack**; Ryan M. Danell[1]; Severine A. Ouvry-Patat[2]; Cameron O. Scarlett[3]; J. Paul Speir[4]; Christoph H. Borchers[5]; *[1]Danell Consulting, Greenville, NC; [2]University of North Carolina, Chapel Hill, NC; [3]University of Wisconsin, Madison, WI; [4]Bruker Daltonics, Billerica, MA; [5]University of Victoria Proteomics Centre, Victoria, Canada*

TOA pm 02:50 **Assessment of the Dynamic Range in Profiling Complex Mixtures by µLC-MS using Fourier Transfrom Mass Spectrometry**; Michael R. Hoopmann; Michael J. MacCoss; *Univ of Washington, Genome Sciences, Seattle, WA*

TOA pm 03:10 **Complementing Discovery-Based Proteomic Platforms with Targeted Analysis of Proteins Involved in Human Heart Failure**; Kelli G. Kline[1]; Michael J. MacCoss[2]; Christine C. Wu[1]; *[1]University of Colorado Health Sciences Center, Aurora, Co; [2]University of Washington, Seattle, Wa*

TOA pm 03:30 **Quantitative Mass Spectrometric Assay Development for Characterizing Endogenous B-type Natriuretic Peptide (BNP) from Congestive Heart Failure Patients**; Adam Hawkridge[1]; Denise M. Heublein[2]; Alessandro Cataliotti[2]; John C. Burnett, Jr. [2]; David C. Muddiman[1]; *[1]NC State University, Raleigh, NC; [2]Mayo Clinic College of Medicine, Rochester, MN*

TOA pm 03:50 **Comprehensive Comparative Proteomic and Transcriptomic Profiling of the Fission Yeast Schizosaccharomyces Pombe**; Michael W. Schmidt; Andres Houseman; Katie Doud; Dieter A. Wolf; Alexander R. Ivanov; *Harvard School of Public Health, Boston, MA*

TOA pm 04:10 **Informative Fractionation and FT ICR MS Analysis to Go Down into the Dynamic Range of Expression of Plasma Proteins**; Olivia Guerre; Florence Guérard; Christian Rolando; *Univ. des Science/Tech de Lille, Villeneuve d'Ascq, France*

2:30 - 4:30 pm
MS EVALUATION OF BIOMARKERS
Chair: Lambert Ngoka

TOB pm 02:30 **Inactivation of Glyceraldehyde-3-Phosphate Dehydrogenase by Fumarate: Formation of S-(2-succinyl)cysteine, a Novel Biomarker of Mitochondrial Dysfunction in Diabetes**; Matthew Blatnik; Norma Frizzell; Susan R. Thorpe; John W. Baynes; *University of South Carolina, Columbia, SC*

TOB pm 02:50 **Application of FAIMS for Increased Selectivity in Quantitation of Asparagine Synthetase from Leukemia Samples**; Susan E. Abbatiello; Thomas P. Conrads; *University of Pittsburgh Cancer Institute, Pittsburgh, PA*

TOB pm 03:10 **Quantitation of Protein Biomarkers of Cardiovascular Injury in Patients by Targeted MS**; Terri Addona[1]; Hasmik Keshishian[1]; Michael Burgess[1]; Xu Shi[2]; Veronica Saenz-Vash[1]; Eric Kuhn[1]; Robert E. Gerszten[2]; Steven A. Carr[1]; *[1]Broad Institute of MIT and Harvard, Cambridge, MA; [2]Massachusetts General Hospital, Boston, MA*

TOB pm 03:30 **Identification of Potential Plasma Biomarkers of Traumatic Brain Injury using a Subtractive Proteomic Approach**; Fabio Leonessa[2]; Eleanor Y. Lee[2]; DaRue A. Prieto[1]; King C. Chan[1]; Hongna Pan[2]; Haleem J. Issaq[1]; Timothy D. Veenstra[1]; James M. Ecklund[2]; *[1]SAIC-Frederick, Frederick, MD; [2]Uniformed Services University of Health Sciences, Bethesda, MD*

TOB pm 03:50 **Identification and Validation of Differentially Expressed Proteins Associated with Hypoxia in Human Malignant Glioma Cell Lines**; Uwe Warnken[1]; Tore Kempf[1]; Stefan Rahn[1]; Wolfgang Wick[2]; Brigitte Frank[2]; Martina Schnölzer[1]; *[1]German*

Cancer Research Center, Heidelberg, Germany; [2]University of Tübingen Medical School, Tübingen, Germany

TOB pm 04:10 **Novel Strategy for Multiplexed Biomarker Analysis**; Bruno Domon; Hoo-Keun Lee; Vinzenz Lange; Ruedi Aebersold; *ETH Zurich, Zurich, Switzerland*

2:30 - 4:30 pm
MS IMAGING – SMALL MOLECULES
Chair: Pierre Chaurand

TOC pm 02:30 **Imaging Drugs and Metabolites in Tissues by MALDI MS**; Michelle L. Reyzer; Richard M. Caprioli; *Vanderbilt University, Nashville, TN*

TOC pm 02:50 **MALDI Mass Spectrometric Imaging of Lipids: The Use of Sublimation for Matrix Deposition Minimizes Analyte Spreading**; Joseph A. Hankin; Robert M. Barkley; Robert C. Murphy; *University of Colorado Health Science Ctr, Aurora, CO*

TOC pm 03:10 **Investigation of Altenative Matrixes for LDI MS imaging of Small Molecules**; Sangwon Cha; Hui Zhang; Wenxu Zhou; Basil Nikolau; Edward S. Yeung; *Iowa State University, Ames, IA*

TOC pm 03:30 **High Resolution Imaging of Secreted Peptides in Bacterial Community**; Delphine Debois[1]; Vincent Guérineau[1]; Kassem Hamzé[2]; Barry Holland[2]; Simone Séror[2]; Alain Brunelle[1]; Olivier Laprévote[1]; *[1]Laboratoire de Spectrométrie de Masse, ICSN / CNRS, Gif-sur-Yvette, France; [2]Institut de Génétique et Microbiologie, CNRS, Orsay, France*

TOC pm 03:50 **Whole-Cell Sample Preparation for Imaging Mass Spectrometry of Individual Cells and Application to Radiation Treatment of Human Breast Cancer Cells**; Elena S.F. Berman; Susan L. Fortson; Mark G. Knize; Ligang Wu; Kristen S. Kulp; James S. Felton; Kuang Jen Wu; *Lawrence Livermore National Lab, Livermore, CA*

TOC pm 04:10 **Analysis of Latent Fingerprints by Imaging Desorption Electrospray Ionization (DESI) - Mass Spectrometry**; Demian R. Ifa; Ismael Cotte-Rodriguez; Nicolas E. Manicke; Luke Gumaelius; R. Graham Cooks; *Purdue University, West Lafayette, IN*

2:30 - 4:30 pm
HYPHENATED MS TECHNIQUES IN METABOLITE ANALYSIS
Chair: Jonathan L. Josephs

TOD pm 02:30 **Metabolite Identification with Mass Spectrometry: An Overview**; Cornelis Hop; *Pfizer, Groton, CT*

TOD pm 03:10 **An Integrated LC-MS-microcoil NMR System with High Sensitivity for Rapid Structural Elucidation of Small Molecules from Complex Mixtures**; Yiqing Lin[1]; Jimmy Orjala[2]; Paul Vouros[1]; Roger Kautz[1]; *[1]Northeastern University, Barnett Institute, Boston, MA; [2]University of Illinois, College of Pharmacy, Chicago, IL*

TOD pm 03:30 **Detection of Circulating Metabolites of Carbamazepine in Microdosing Studies in Rats using LC-MS/MS**; Carmai Seto[1]; Jinsong Ni[3]; Fred Ouyang[3]; Robert Ellis[1]; Mauro Aiello[1]; Elliott B. Jones[2]; Devin Welty[3]; Andrew Acheampong[3]; *[1]Applied Biosystems/MDS SCIEX, Concord, Canada; [2]Applied Biosystems, Foster City, CA; [3]Allergan, Irvine, CA*

TOD pm 03:50 **Discovery and Identification of Low Level Drug Metabolites using a Novel Searching Method Combined with Exact Mass Measurement**; Andrew Pike[1]; Edgar Naegele[2]; Shaun Bilsborough[3]; *[1]Astex Therapeutics Ltd., Cambridge, United Kingdom; [2]Agilent Technologies GmbH, Waldbronn, Germany; [3]Agilent Technologies UK Ltd., Cheadle, United Kingdom*

TOD pm 04:10 **A New Strategy for Oxidative Metabolite Identification by QTRAP LC/MS: Use of Multiple Ion Monitoring-Dependent MS/MS Acquisition and Data Mining**; Ming Yao; Li Ma; William G Humphreys; Mingshe Zhu; *Bristol-Myers Squibb, Princeton, NJ*

2:30 - 4:30 pm
ION TRAP APPLICATIONS
Chair: Gavin E. Reid

TOE pm 02:30 **The Use of Ion Traps Alone and in Hybrid Configurations for Protein Identification, Characterization, and Quantification**; Steven P. Gygi[1]; Bryan A. Ballif[2]; Chunshui Zhou[1]; Stephen J. Elledge[1]; Corey E. Bakalarski[1]; Sean A. Beausoleil[1]; Xue Li[1]; Wilhelm Haas[1]; *[1]Harvard Medical School, Boston, MA; [2]University of Vermont, Burlington, VT*

TOE pm 03:10 **Electron Transfer Dissociation, Multi-Stage Activation and Neutral Loss Initiated MS3 utilized in the Characterization of Phosphorylation Sites of Human Kinases**; Martin Hornshaw[1]; Nick Morrice[2]; *[1]Thermo Electron, Hemel Hempstead, United Kingdom; [2]MRC Protein Phosphorylation Unit, Dundee, Scotland*

TOE pm 03:30 **H/D Exchange Levels of Gas Phase Cytochrome *c* Ions Excited in a Linear Quadrupole Ion Trap**; John Wright; D.J. Douglas; *University of British Columbia, Vancouver, Canada*

TOE pm 03:50 **Ion Traps and Glycoproteomics: Unraveling Complexities without Chromatography**; Vernon N. Reinhold; David Ashline; Tony Lapadula; Hailong Zhang; *University of New Hampshire, Durham, NH*

TOE pm 04:10 **Investigation of Phenyl Radicals' Reactions With Tetrapeptides Via Laser-Induced Acoustic Desorption In a FT-ICR Mass Spectrometer**; Steven Habicht; Sen Li; John J. Nash; Hilkka I. Kenttamaa; *Purdue University, West Lafayette, IN*

2:30 - 4:30 pm
AMBIENT IONIZATION MASS SPECTROMETRY
Chair: Jonathan P. Williams

TOF pm 02:30 **Extending the Range of Applications for the DART Ion Source**; Robert B. Cody; *JEOL USA, Inc., Peabody, MA*

TOF pm 02:50 **The Helium Atmospheric Pressure Glow Discharge: a New Ionization Source for the Direct Analysis of Solids, Liquids and Gases**; Francisco J Andrade; Steven J Ray; Michael R Webb; Gary M Hieftje; *Department of Chemistry-Indiana University, Bloomington, IN*

TOF pm 03:10 **Desportion-Electrospray Ionization (DESI) Mass Spectrometry: Characterization of Plume and Droplet Interactions Towards Surface Imaging**; Gary A. Valaskovic; *New Objective, Inc., Woburn, MA*

TOF pm 03:30 **Simulation of Atmospheric Transport in Desorption Electrospray Ionization**; Anthony B. Costa; R. Graham Cooks; *Purdue University, West Lafayette, IN*

TOF pm 03:50 **Analysis of Complex Mixtures using an Atmospheric Solids Analysis Probe (ASAP) Mass Spectrometry**; Barbara S. Larsen; Chris Roe; Karen